

INTEGRATED WORD STUDY: SPELLING, GRAMMAR, AND MEANING IN THE LANGUAGE ARTS CLASSROOM

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Most upper elementary-aged readers are beyond phonics, but they can still benefit from learning about how words work.

Much has been written about the importance of phonemic awareness in the early stages of literacy acquisition (see Adams, 1990; Beck & Juel, 1995). Certainly the weight of evidence underscores the importance of knowing how the alphabetic system represents language segments smaller than the word when learning to read. But is language awareness important beyond the beginning-to-read stages? Is there any value in learning how written language represents other aspects of language, such as grammar and meaning, through its orthography? For those students who have mastered phonics and sound-symbol relationships, how can orthographic awareness be used to further develop their reading and writing abilities?

Teaching students how spelling represents meaning and parts of speech strengthens language arts instruction in the upper elementary grades by helping students learn about and reflect on language use. This article explores the relationships of spelling to word meaning and grammar and how *word study* techniques enhance student understanding of these relationships. The techniques described provide a theoretical framework for the coordination of spelling, vocabulary, and grammar instruction through a range of reading and writing activities in a literature-based, integrated language arts program. The word study initiatives described in this article are still under development, but the techniques are currently being used for classroom instruction in several central Virginia schools.

What Is Word Study?

Word study involves students grouping words into categories of similarity and difference (Abouzeid, Invernizzi, Bear, & Ganske, 1995; Bear, Invernizzi, & Templeton, 1996; Morris, 1982). Students categorize words according to spelling, meaning, and use patterns in order to better understand how spelling represents a word's meaning and grammatical function. The content of word study at any particular grade is based on research in developmental spelling (Henderson, 1990; Templeton & Bear, 1992) that shows that children acquire specific features of words in a hierarchical order—from basic letter-to-sound correspondences, to patterns associated with long and short vowel sounds, to structures within words associated with syllables and affixation, and finally, to Greek and Latin roots and stems that appear in derivational families.

Central to word study is differentiating based on students' demonstrated levels of orthographic awareness (Bloodgood, 1991; Invernizzi, Abouzeid, & Gill, 1994). The word study activities discussed in this article are for students well beyond the beginning stages of reading and who are able to read independently, silently, and from books of considerable length. The students demonstrate consistent control of simple grapheme-phoneme correspondences in their writing; consonants, blends, digraphs, vowels, and high-frequency spelling patterns are all spelled correctly. For these students, also referred to as Syllable Juncture students (Henderson, 1990; Henderson & Templeton, 1986; Schlagal, 1992), writing errors occur in unaccented final syllables (e.g., *circel* for *circle*, *nickle* for *nickel*) and syllable structures preserved through consonant doubling and *e*-drop (e.g., *stoping* for *stopping*, *gazzing* for *gazing*). Syllable Juncture students build awareness

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of spelling-meaning and spelling-grammar connections through the study of homophones of more than one syllable, homographs, and the role of unaccented syllables in signaling parts of speech.

Homophones are one example of how spelling patterns indicate differences in meaning, although sound does not change. Spelling-meaning connections are explicit in upper level word study of this kind. Note the distinctions in meaning in the following words, categorized by spelling pattern:

pail	pale	there	their
tail	tale	where	wear
mail	male	here	hear
sail	sale		

Word sorts and games that call attention to these homophones allow students to internalize spelling-meaning connections and to develop mnemonics for difficult words like *there* and *where*.

Homographs illustrate how syllable stress signals different grammatical roles. The following categories show how two different parts of speech are represented by syllable stress. The categories highlight a common relationship between syllable stress and word function for many homographs.

<i>Stress in First Syllable</i>	<i>Stress in Second Syllable</i>
subject (noun, adjective)	subject (verb)
conduct (noun, adjective)	conduct (verb)
rebel (noun, adjective)	rebel (verb)
console (noun, adjective)	console (verb)

After studying the connections reflected in spelling patterns and syllable stress, students embark on a combination of the two. Two-syllable homophones (e.g., *effect*, *affect*; *alter*, *altar*) provide interesting words for vocabulary and grammar study. For example, *alter* and *altar* differ in the spelling of the unaccented final syllable. As we will see later, unaccented final syllables provide a rich source of semantic and syntactic information; they signal parts of speech.

Word Study in an Integrated Language Arts Unit

The integration of social studies with language arts in the upper elementary grades is a common way to make history real and put students inside the heads and hearts of other generations. The Civil War, for example, may be studied by reading and discussing trade books along with traditional social studies texts. Children's literature about the war, including picturebooks and fiction and

nonfiction chapter books, is available at many different reading levels. These books are read for both their literary value and historical content. Within a literature-based unit on the Civil War, words from such texts can be analyzed for their contribution to the authors' craft as well as for their form and function. Word study techniques can enhance student understanding of the Civil War and of language arts. For example, since unaccented final syllables provide information about a word's

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grammatical function and meaning, teachers might scan the available texts for words ending in *-er*, *-ar*, and *-or*, making this spelling feature part of the study of the Civil War.

Concept Sorts

The following /er/ words were taken from a variety of fiction and nonfiction trade books related to the Civil War in addition to a fifth-grade social studies text (Versteeg & Skinner, 1991). They are sorted by meaning, an activity commonly referred to as a *concept sort* (Gillet & Kita, 1980).

commander	traitor	tormentor	honor
officer	deserter	captor	favor
drummer	prisoner	victor	anger
soldier		marauder	horror
major		liberator	clamor
gunner			

Word-conscious teachers might play "Guess My Category" as a prereading vocabulary exercise, asking such questions as:

What do *commander*, *officer*, *drummer*, and so on have in common?

How are they related to military characters we have discussed?

How are a *traitor* and a *deserter* alike?

Are all deserters traitors?

How do the words *traitor* and *deserter* apply to Say Curtis in *Pink and Say* (Polacco, 1994) or Charley Skedaddle in *Charley Skedaddle* (Beatty, 1987)?

Why are *tormentor*, *captor*, and *victor* grouped together?

How are they different from the first category?

What about *honor*, *favor*, and *anger*?

Are there words you would place in another category?

What do all these classifications have to do with what we've learned so far about the Civil War?

After discussing words in this manner, students write the words in their notebooks as a beginning place and add to the lists as they read.

Spelling-Meaning Connections

After sorting a list of words by meaning, the same words can be reorganized into categories that reflect spelling patterns. Words that are spelled with *-ar* are added for additional contrast.

<i>-er</i>	<i>-or</i>	<i>-ar</i>
commander	major	cellar
officer	captor	peculiar
anger	victor	spectacular
soldier	honor	
deserter	favor	
prisoner	clamor	

This activity allows students to group words by the pattern of the unaccented final syllable. In so doing, they come to realize that *-er* is the most common spelling of /er/ and that *-ar* endings frequently indicate descriptive adjectives.

Spelling-Grammar Connections

As children scan the pages of their texts to find other words ending in *-er*, *-ar*, and *-or*, they might find additional classifications by parts of speech:

older	water	regular	color
taller	river	peculiar	honor
bolder	saber	spectacular	favor
longer	corner	particular	horror
bigger	paper		terror
sooner	silver		clamor
thinner			
smaller			

Other spelling-grammar connections become apparent. Comparative adjectives as well as many concrete nouns end in *-er*; while abstract nouns end in *-or*.

A final sort of nouns ending with /er/ gives students a glimpse of word origins and their connection to spelling. Nouns of agency (e.g., *teacher*, *farmer*, *actor*, *con-*

ductor) usually have *-er* or *-or* endings. Those with more common Anglo-Saxon roots end in *-er*, while words with Latin origins end in *-or*. *Scholar* is an interesting exception that could be grouped with other *-ar* nouns (e.g., *collar*, *pillar*) and discussed.

Reading, Writing, Word Study, and Literary Analysis

Studying words of more than one syllable also offers opportunities to build awareness of how language is used in narrative writing. For example, many books about the Civil War use dialect in character dialogue. Dialect speech is often difficult for students to read and understand. As an extension of the word study described above, a look at words written in dialect helps students understand these words and how to decode them. Frequently, dialect speech collapses unaccented syllables into shorter pronunciations. Words like *figgerin'* for *figuring* and *tol'able* for *tolerable* (Hunt, 1964), challenge students to read alternate spellings of words they may already know.

Adding an /er/ dialect column to the *-er*, *-ar*, *-or* sort provides a structure for alerting students to alternate forms of English. Spelling gets more complicated when word forms change, such as *furriners* for *foreigners*, *'tater* for *potato*, *purtier* for *prettier*, giving students a task akin to translation. Dialect study provides an opportunity to discuss the meaning element of English words, that is, the root of a word as a constant in understanding meaning.

Old-fashioned expressions, or words not commonly used today, like *stoked*, *cleaved*, *I allow*, and *dry goods*, may also be difficult for students to understand. When students investigate these dialect words and phrases, they become familiar with the language and customs of the period and focus attention on terms that might hinder comprehension.

Pink and Say (Polacco, 1994), an excellent picture-book for a read-aloud introduction to Civil War issues, uses dialect to develop the atmosphere of the story. By putting themselves in the place of a young black soldier fighting to end slavery or a wounded white deserter beginning to understand the personal conflicts of the war, students better understand the conditions and conflicts of this era. A running list of dialect words and phrases used in *Pink and Say* could be sorted structurally and used to extend the book in a variety of written responses (Bromley, 1992). One group of fifth-grade students organized their dialect list structurally, by the part of the word omitted, and grammatically, by unusual verb form:

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<i>beginning</i>	<i>middle</i>	<i>end</i>	<i>verbs</i>
'spect	mess-o'-beans	sloggin'	git
'til	near 'nuff	flushin'	afeared
'cause	heap o' trouble	trustin'	brung
	so's	mornin'	smote

With greater understanding of the spelling and grammatical role of these dialect forms, the students created dialect of their own as they extended a section of *Pink and Say* for readers' theater. The students also demonstrated their understanding of the characters' personalities by using Pink's and Say's character traits and language to complete the scene.

Narrator: Moe Moe Bay sent Pink and Say to the root cellar when the marauders came to ransack her home again.
 Pink: She's *drawin'* them off.
 Say: My heart's *beatin'* so loud, they'll hear it, *sure 'nuff*.
 Pink: *Jest* settle down. *Ain't nothing* left for them raiders to take. We got *nothin'* to fear.
 Say: Sounds like they're *clearin'* out. (pause) What's that shot?
 Pink: *They's tryin'* to scare Moe Moe Bay. She'll call us up soon as they *git* out of sight.
 Narrator: The call never came.

The original concept sort of /er/ words and other word sorts that develop as books are read provide a springboard for writing activities. One teacher modeled the use of word lists to create simple poems (McCracken & McCracken, 1986). She used a list of nouns, then embellished and extended their meaning with adjectives: "War is horror, terror, clamor, and tragedy" became "War has peculiar honor, spectacular clamor, particular horror, and unending death." By using adjectives to add descriptive power to simple word lists, students are sensitized to the role of word choice in poetry or other types of writing.

One literature group chose to respond to *Charley Skedaddle* (Beatty, 1987) using poetry. Inspired by the book and the song, "The Drummer Boy of Shiloh" (Schreiber, Stepien, Patrick, Remy, Gay, & Hoffman, 1983), Terrence wrote a verse that incorporated several of the /er/ words his word study group had previously classified.

Commander please have mercy.
 A drummer I want to be.
 I'll fix your *dinner* and shine your shoes
 If you will *favor* me.

Another group of fifth graders read *Who Comes with Cannons?* (Beatty, 1992), a novel about orphaned Quaker Truth Hopkins who left Indiana in 1861 to live with relatives in North Carolina. Students responded to the novel at the point where Truth is heading north with

her uncle on the Underground Railroad in an attempt to rescue cousin Robert from military prison. The students were challenged to include words introduced in the concept sort and to embellish their writing with adjectives and abstract nouns from the grammar sort. Previously, Alicia had developed the character web shown in Figure 1 for Truth and her relatives, and she used this as she responded in Truth's voice to her fears about Robert's fate:

The *conductor* just told me about the *prisoner* camps. There is much *hunger*, sickness, and other *horrors* there. I am worried about my cousin getting sick because there are no *doctors*. I have heard that many *prisoners* are dying of *fever*. Robert is one of the *younger*, *smaller* boys, and he is likely to get sick. He was very *slender* the last time I saw him. I hope his *captors* are treating him kindly.

Word Study Extension Activities

As a wrap-up to the study of words ending in /er/, word study groups played "AR ER OR Trivia," a game of morphophonemic awareness that is shown in Figure 2 (McMullen, 1988). Choosing a category (-er, -ar, -or) and a question with a value of 100 to 500 points, students quizzed each other, giving clues such as: "In the category -ar for 200 points, name the following word: A two-syllable noun with the double letters *ll* in the middle; a short *e* in the first syllable; is used to refer to a room in an underground location" (*cellar*); and "From the category -or for 300 points, name this word: A two-syllable noun; short *i* in the first syllable; comes from

Repeated word sorting routines require students to discriminate and make critical judgments about spelling patterns, word structures, word meanings, and use.

the Latin word meaning conqueror" (*victor*). In this fashion, students tested their awareness of spelling-meaning and spelling-grammar connections and generalized to other words with the same patterns.

The word study examples discussed in the Civil War unit primarily dealt with unaccented final syllables since these words are commonly misspelled by students in the Syllable Juncture stage of spelling development. Unaccented syllables provide a wealth of information about a word's meaning and function. In terms of the history of our language, unaccented final syllables are often vestiges of Old English, when English was an in-

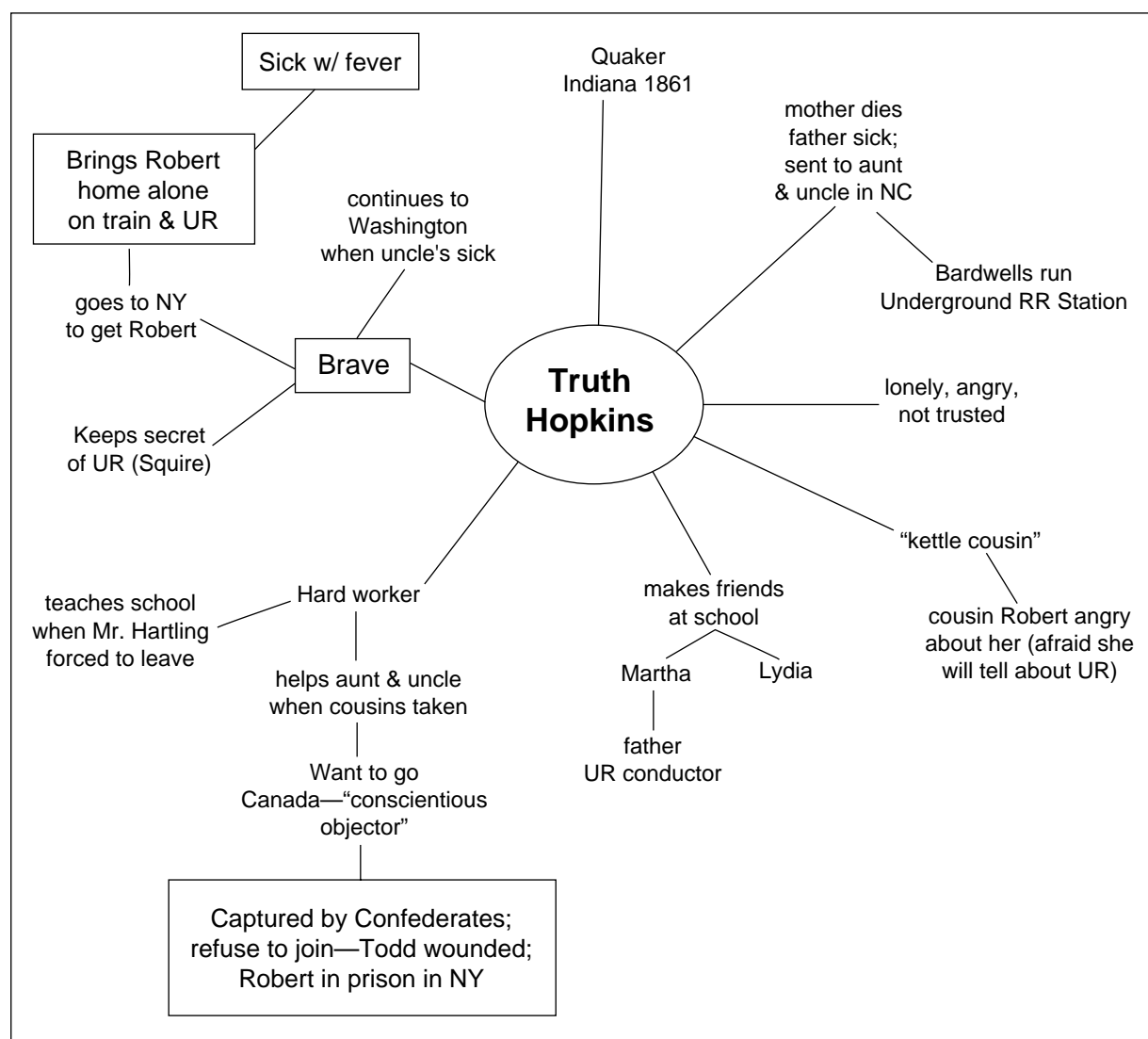


Figure 1. Character Web from *Who Comes with Cannons?*

flected language; hence, they signal grammatical class. Other word features appropriate for study by intermediate readers and writers include syllable structures and accommodations at the place where syllables meet. Such word study might include a comparison of base words with the inflected spellings (e.g., *slog*, *slogging*) as well as classifications by sound, pattern, and part of speech. Words ending in -y, for example, provide a rich corpus for analysis. Sorting multi-syllable words ending in -y into two categories, by sound and grammatical class, leads to some interesting discoveries. For example, *apply*, *certify*, *occupy*, and *rely* all end in the /ai/ sound, and they are all verbs. *Butterfly* is memorable for its unique form (a compound word) and function (not a

verb, although *fly* alone could be). In these words, either primary or secondary stress rests on the final syllable. Final -y also has the /i/ sound in words with unaccented final syllables (e.g., *hurry*, *family*, *angry*). *Country*, *silly*, and *certainly* all end in /i/ and form three different grammatical categories:

<i>Noun</i>	<i>Adjective</i>	<i>Adverb</i>
country	sorry	seriously
cemetery	silly	horribly
custody	starry	hurriedly
celery	happy	certainly
gypsy	pretty	happily

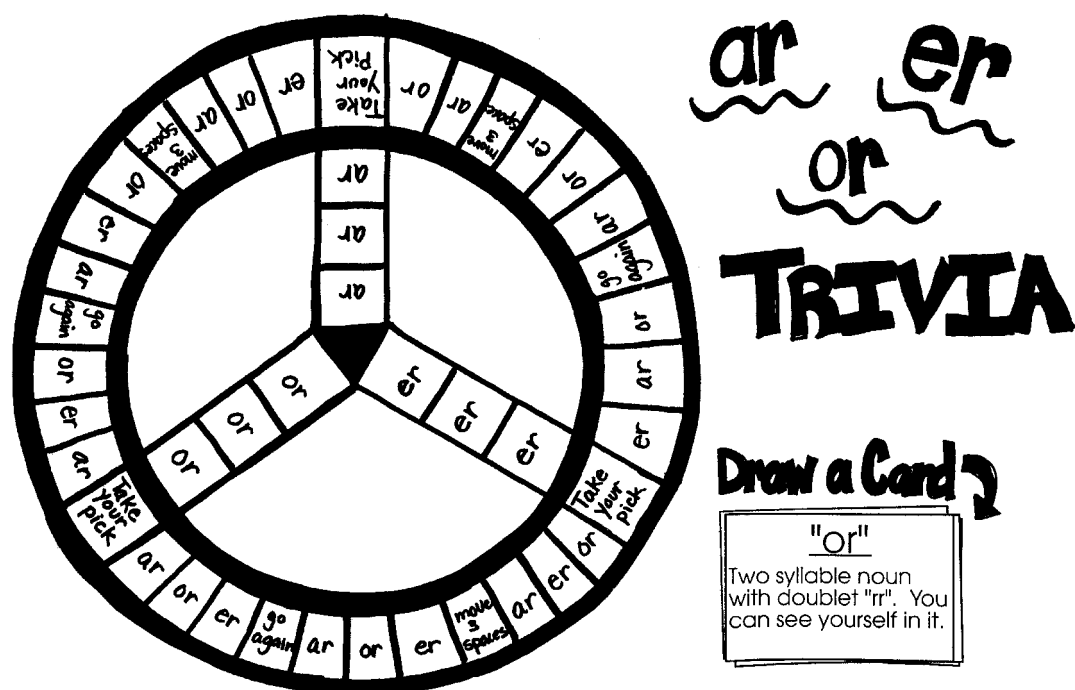


Figure 2. Game Lay-Out for AR ER OR Trivia (Adapted from McMullen in Bear, Invernizzi, & Templeton, 1996.)

Interesting hypotheses about the doubling pattern evident in the second column (adjectives) can be tested by adding more examples from reading. Further analyses of the third column (adverbs) leads to learning about spelling changes necessitated by affixation (e.g., *happy* to *happily*; *horrible* to *horribly*).

Why Include Word Study in a Language Arts Program?

There are three reasons for adopting a word study approach to spelling, vocabulary, and grammar instruction in a language arts program: (1) Word study provides theoretical integrity for the integration of word-level skills within the context of reading and writing; (2) word study imitates the fundamental cognitive learning process of categorization and brings this process to conscious attention; and (3) word study is hands-on, student-centered, developmentally appropriate, and fun.

Theoretical Integrity

Word study is based on extensive research of children's development of word knowledge as they learn to read and write (cf. Templeton & Bear, 1992). Students must quickly and accurately perceive word patterns in order to recognize, produce, and understand written language (Perfetti, 1991). Accurate, rapid word recognition is fa-

cilitated by opportunities to engage in meaningful reading and to examine the same words, both in and out of context (Morris, 1989). Word-conscious teachers link word study to literature; provide a flexible sequence that includes instruction in grammar, literary analysis, and writing; and provide hands-on, repeated practice. Word study makes explicit how spelling patterns and word structures reflect meaning and use.

Fundamental Cognitive Process

Word study imitates basic cognitive learning processes: comparing and contrasting categories of word features and discovering similarities and differences within and between categories. Students are asked to compare words within a category, to note patterns of consistency, and to look across categories to note contrasts. Repeated word sorting routines require students to discriminate and make critical judgments about spelling patterns, word structures, word meanings, and use. This simple but powerful approach to word knowledge can be used not only to learn about language form and function but to also foster comprehension. Words ending in *-er*, *-ar*, and *-or* may be sorted by concepts or by spelling patterns and grammar, as done in the Civil War unit above. Both activities entail classifying and categorizing the basic cognitive process of learning.

Student-Centered Learning

A word study approach to spelling-meaning and spelling-grammar connections is different from traditional instruction involving worksheets and grammar book exercises. Because the principles of word study are based on developmental research on how children learn to recognize (read), produce (write), and use (understand)

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written words, word study is developmentally appropriate. That is, word study differentiates word-level instruction according to students' demonstrated levels of orthographic awareness; it authentically integrates word-level skills with reading and writing vocabulary; and the activities are student-centered. Although teacher-taught rules seldom stick, hypotheses and conclusions that students develop themselves are more readily generalized to their reading and writing vocabulary.

Differentiation: The content of word study instruction differs based on what students are currently studying in spelling. Students' spelling errors are interpreted according to features spelled correctly, and instruction is targeted to features that are used but often confused (Invernizzi et al., 1994). For example, the students working on the Civil War unit correctly spelled the features in most one-syllable words and inconsistently used syllable conventions such as doubling, *e*-drop, *y*-to-*i* change, and the schwa (ə) sound in unaccented syllables. Word study addressed these issues within the context of a meaningful, reading-based vocabulary.

Authenticity: Word study in an integrated language arts program uses the words actually read and written by students. Instruction begins with words from texts, provides opportunities to manipulate the same words out of context, then returns to texts to find other words that exemplify the same spelling-meaning connections. Word categories can segue into related writing activities.

Developmentally Appropriate: The most appealing aspect of word study is the student-centered activities.

Students manipulate and categorize the words they read. Teachers stack the deck, so to speak, to focus attention on a particular contrast. A discovery-oriented, systematic program of word study is a teacher-directed, student-centered method for learning about written language form and function. When students make decisions about whether *marauder* is more closely related to *traitor* or *captor*, or whether *doctor* is more like *soldier*, *instigator*, or *peculiar*, independent analysis and judgment are demanded. Students make decisions for themselves. The game-like format of the activities makes word study motivating and fun.

There is more to spelling than grapheme-phoneme correspondences. Word study that focuses on spelling-meaning and spelling-grammar connections helps students expand their vocabulary, develop sensitivity to word choice in reading and writing, and build explicit awareness of how English orthography functions in the integrated language arts program.

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